

Preserving your Produce – Freezing and Storing

August, September and October can be busy months for the gardener, stocking up for the rest of the year. You may find that you have a “glut” of one thing or another and as though you have to be giving your veg away, as you have more than you can eat. However, there are ways that you can preserve your garden produce to last you longer. In these notes, methods where little processing of your crop are used, so that your vegetables are suitable for use in a form that is close to how they might be if freshly harvested.

Freezing

The ideal is to eat fresh from the garden, but the fact is you’ll always have a surplus and it is nice to eat your favourites out of season. Some things are unsuitable for freezing such as chicory, cucumber, endive, kale, lettuce, radishes, Jerusalem artichokes. Other vegetables, such as potatoes and other roots are best stored in other ways, but you can freeze if you wish. Freezing is one of the easiest ways to store the surplus and retains taste and vitamins.

Successful freezing depends on how quickly you can reduce the temperature of the food. Slow freezing may not make the food inedible but will affect flavour and, more importantly, nutritional value. Fast freezing halts bacterial growth instantly and produces very small ice crystals, which causes less damage to the cell structure of the food. Before you commence preparing food for freezing you should turn your freezer on to its super or fast setting – preferably 3 hours or so before. This just keeps the motor running and drops the temperature as low as possible. When the food goes into the freezer it will cause the temperature to rise as the food cools. The super setting ensures the food already there remains at optimum temperature and the food being frozen cools as quickly as possible. Do not try to freeze too much in one go – never more than 10% of the freezer capacity at a time. Also, the colder the food when it goes into the freezer, the less work the freezer has to do. You could consider pre-cooling your produce in the fridge down to about 5 degrees before freezing.

To get your food to store well in the freezer you need to blanch it. This is essential with most vegetables. Blanching destroys certain enzymes and bacteria whilst helping to preserve the colour, texture and flavour of the food. It also helps retain vitamin C. The method is really quite simple. You need to put the food into boiling water and raise its temperature as fast as possible. You need at least 6 pints of water per 1lb of produce. You also need a blanching basket. This is just a sieve to hold the produce together. So, plunge into the water which needs to be back up to a rolling boil in 1 minute or less. If you can’t do that – blanch smaller portions. Different vegetables will have slightly different recommended times for blanching, varying between 2 minutes for peas and beans, and 45 mins of beetroot. Details for how long to blanch each vegetable can be found in books such as those in the reference section, or online.

After this you need to get the temperature down as fast as possible and stop the cooking process. You could try plunging into a bowl of cold water for 5 seconds or so to kill the heat then transfer to a second large bowl of water with ice cubes in it, changing the water in the first bowl each time to keep it as cold as possible.

When the food is cold, remove from the water and drain or dry off. You can freeze by either packing either straight into freezer bags, or laying out on baking trays first, so that smaller items don't just clump together when frozen.

Drying and cold storage

With some care, you can enjoy your own produce year round using no technology or electricity at all. Drying and cold storage are easy and inexpensive ways to preserve and for storing vegetables. Onions, garlic, and chillipeppers are usually dried. Squash, potatoes, apples and root crops are best kept in cold storage. When storing vegetables you need to sort out the damaged or any showing signs of rot and use these first as if they rot, the rot will spread and ruin your whole crop. It is a good idea to regularly check your stored produce to keep an eye out for any that are starting to spoil, so that it doesn't spread to the rest.

General Guidelines for storage:

- Plant vegetable varieties bred for winter keeping.
- Don't wash vegetables before putting into cold storage - use a brush to remove soil.
- Remove tops off root vegetables.
- Check vegetables in cold storage frequently and remove any that are spoiled.

Choose your location and preservation method for storing vegetables based on the vegetable's preferred temperature and humidity, as listed below:

- Cool and dry: onions, apples
- Cool and moist: root crops, potatoes, cabbage
- Warm and dry: squash, pumpkins, dried chilli peppers

In-ground "clamp" Vegetable Storage

Roots, tubers, and bulb vegetables require little effort to store. Some vegetables - including beets, carrots, parsnips, swede, celeriac, and turnips - can be left in the ground until you want to use them. Cover with a 1-2 foot (30-60 cm) layer of mulch such as straw or hay, which will trap air and won't become saturated with water, an easy way of storing vegetables. You can also use wood chips or leaves if you remove them before they decompose in the spring. The upside of in-ground storage is that it's easy. The downside is that vegetables can be damaged if it's too cold or too rainy, and harvesting is difficult to impossible if the ground is frozen. Potatoes are not suitable for in-ground storage.

Cold Storing Vegetables

Storage spaces in the home can approximate old-fashioned root cellars. Your "root cellar" should be a cool, dry, dark space, such as a cool cupboard, shed or garage. Optimal cold storage temperatures are 7°-10°C. The best storing vegetables for root cellaring are beetroot, carrots, parsnips, potatoes, pumpkins, swedes, turnips and squash.

As a type of cold storage, some vegetables store well packed in layers of damp sand or sawdust in wooden boxes, or plastic buckets. Beets, carrots, parsnips, swedes, kohlrabi, and turnips can be preserved this way. Place boxes where they will be stored - they've heavy when full - and alternate layers of vegetables and layers of damp sand.

Storing Potatoes

When you first harvest your potatoes, you should leave them out in the sun for a few hours to dry off and allow the skin to harden a little. After this, brush off any excess soil and check for damage. Sometimes it is hard to tell as a little hole on the surface can indicate a network of tunnels and even a live slug hiding in the potato so check as carefully as you can. Any forked, slugged or suspect potatoes should be put to one side and used as quickly as possible. Unlike other root crops, potatoes should preferably be stored above 5deg C as below that the starch turns into sugars, which can give them a sweet taste. The optimum temperature range is between 5 and 10° C. The most important point when storing potatoes is to exclude light. Prolonged exposure to light will cause greening of the potato. Partially green potatoes are still edible – just cut off the affected parts. You can

store potatoes in paper sacks but leave the neck slightly open to allow excess moisture to escape.

Storing Onions and Garlic

Leave onions in the ground until the stalks fall over and are almost completely dry. Dig up the onions and dry in the sun - on a screen to hasten the process - for one to three weeks. Braid the dried onion stalks and hang up the braided bundles. Another vegetable storage method for onions is to cut the stems off to 1/2 inch (1.25 cm), put the onions in a mesh bag, and hang them up. Dry and cure garlic as for onions. Cut tops and roots both to 1/2" (12 mm), put in net bags and hang. Garlic can either be stored at room temperature or in cold storage at 32°-40°F (0°-4.5°C). Beware of temperatures between 5°-11°C which will cause garlic to sprout.

Storing Apples and Pears

Early varieties of apple and pear are best eaten straight away rather than stored, while the later varieties can be kept in a cool, dark place, wrapped individually and loosely (not sealed) in paper to keep each from its neighbour. Specialist apple racks are available, but shallow boxes, or a chest of drawers will do the job, kept somewhere cool.

References

<http://www.storingandfreezing.co.uk/healing-vegetables-for-winter.html>

http://www.allotment.org.uk/allotment_foods/Storing_the_Surplus_Potatoes_and_Root_Vegetables.php

http://www.allotment.org.uk/allotment_foods/Storing_the_Surplus_Freezing.php

<http://www.vegetableexpert.co.uk/StoringAndPreservingCategory.html>

<http://www.storingandfreezing.co.uk/storing-fruit-vegetables-for-longer.html>

Books:

AFRC Institute of Food Research, 1989, Home Preservation of Fruit and Vegetables
Piers Warren, 2003, How to Store Your Garden Produce